

Benefits of machine monitoring

- Early fault detection reduces possible damage and protects the environment
- By constant monitoring it is possible to predict faults and dead times, and to reduce the number of revisions and inspections
- Optimised service intervals and shorter time of running with a fault will extend the life of the entire plant
- The investment in condition monitoring can be returned by a single avoided major fault or shutdown

Condition monitoring system for rotating machines - **KONČAR MCM**

Reasons for introduction of monitoring systems

Systems for equipment condition monitoring are the basis of predictive maintenance and risk assessment.

In power plants and other large industrial facilities, predictive maintenance is a precondition for safe and efficient operation. It ensures:

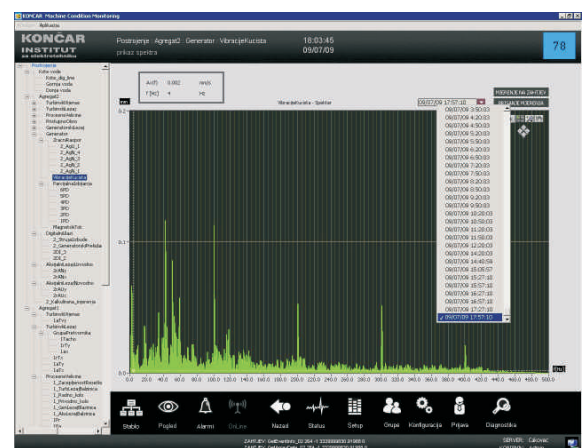
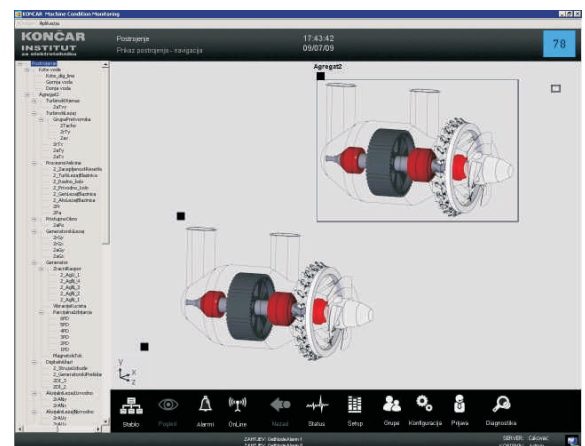
- Higher machine availability
- Improved safety of service and no unplanned outages or dead times
- Longer service life
- Better resource (time, human, capital) management

MCM monitors:

- Vibrations, displacements and orbit
- Speed of rotation
- Electrical quantities
- Magnetic induction
- Process variables
- Temperatures
- Air gaps
- All the quantities that can be entered through LAN

Characteristics of our own solutions:

- Up-to-date measurement instrumentation and techniques, and certified measurement chains
- Modular design to fit every machine or plant
- Complex software solutions
- Reliable hardware
- Solutions based on many years of experience



Analytical means of MCM system:

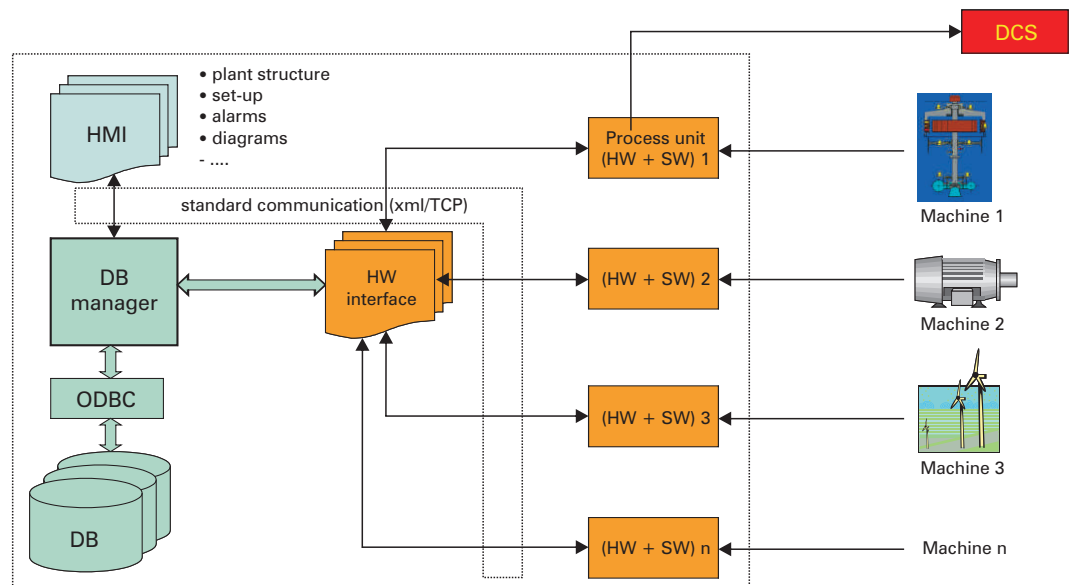
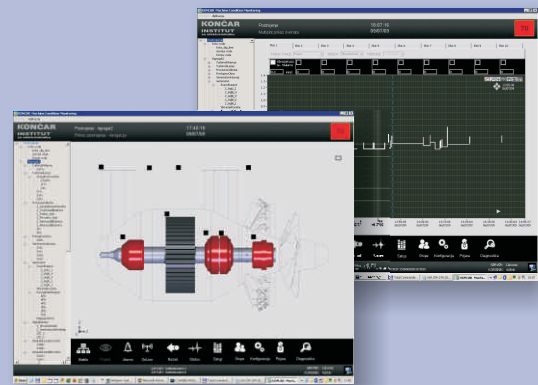
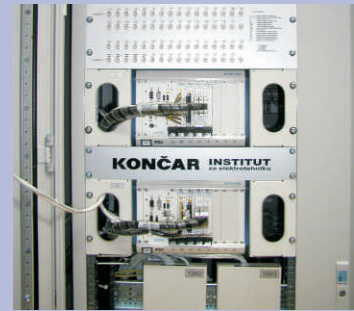
- Continuous real-time and intermittent measurements with permanent records
- Specific event-triggered measurements
- Alarm in the cases when the set limiting values of performance are exceeded
- Trend analysis of monitored quantities
- 3D representations of changes in frequency spectrum
- Analytical processing of measured quantities or entries in the MCM system
- Coupling of independent inputs, and monitoring of complex quantities/ conditions.

THE INSTITUTE offers the following kinds of support:

- Analysis of plant condition before installation of MCM system
- Consulting in making business decisions concerning MCM implementation
- Delivery, installation and commissioning of new MCM systems, and refurbishment of the existing ones
- Specialist assistance in monitoring and interpretation of MCM results
- MCM maintenance
- Training of personnel

Major references

- Diagnostics of more than one thousand motors in Croatia, Slovenia, Bosnia and Herzegovina, Serbia, and Montenegro
- On-line monitoring systems installed on 22 generating units of 1500 MW total power in Europe and America



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